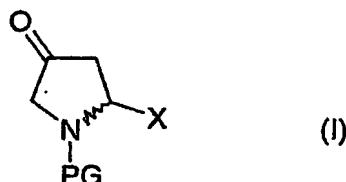


Claims:

1. A process for preparing N-protected 4-ketoproline derivatives of the general formula (I)

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in which
X is an acid, ester or amide function,
10 PG is an N-protective group which comprises a carbonyl function and is bonded via this function to the nitrogen,

15 by oxidizing the corresponding 4-hydroxyproline compound with an oxidizing agent in the presence of catalytically active ruthenium compounds, characterized in that the oxidation is carried out in an aqueous one-phase system, and the oxidation product (I) is allowed to crystallize out during the addition of the oxidizing agent.

20 2. The process as claimed in claim 1, characterized in that the temperature during the oxidation is kept at $\leq 30^{\circ}\text{C}$, in particular $\leq 20^{\circ}\text{C}$, preferably $\leq 15^{\circ}\text{C}$.

25 3. The process as claimed in one or more of the preceding claims, characterized in that salts of hypohalites, halates and perhalates are employed as oxidizing agents.

30 4. The process as claimed in one or more of the preceding claims, characterized in that seed crystals are added to the reaction mixture after addition of 50% of the oxidizing agent.